

## AMENDMENTS TO THE CLAIMS

The listing of the claims will replace the previous version, and the listing of the claims:

### LISTING OF THE CLAIMS

1. (currently amended) A radiation detector comprising:

an active matrix board including gate lines and data lines arranged in a two-dimensional lattice shape, a plurality of high-speed switching elements provided at respective lattice points and connected to the gate lines and the data lines, each switching element being formed of polycrystalline silicon thin film transistor and having a source electrode, pixel electrodes connected to the source electrodes of the high-speed switching elements, and charge storage capacitances, each being disposed between the pixel electrode and a ground electrode; and

a converting layer formed on the pixel electrodes to generate a pair of electron-hole by absorbing one of light and radiation, said converting layer being formed of a vapor-deposited polycrystalline film of CdTe or CdZnTe.

2-3. (cancelled)

4. (previously presented) A radiation detector according to claim 1, wherein said active matrix board further includes a base plate having high heat resistance and insulating property, an insulating film disposed on the base plate and sandwiched by the gate lines and data lines, an insulating protective layer disposed on the insulating film above the switching element, and a common electrode disposed on the converting layer.

5. (previously presented) A radiation detector according to claim 4, further comprising a gate driving circuit to be connected to the

gate lines, a signal reading circuit to be connected to the data lines, and a signal process circuit formed on the active matrix board for connecting the gate lines and data lines to the gate driving circuit and the signal reading circuit.

6. (cancelled)

7. (currently amended) A radiation detector comprising:

an active matrix board including gate lines and data lines arranged in a two-dimensional lattice shape, a plurality of high-speed switching elements provided at respective lattice points and connected to the gate lines and the data lines, each switching element being formed of polycrystalline silicon thin film transistor with a heat resistant temperature more than 300°C and having a source electrode, pixel electrodes connected to the source electrodes of the high-speed switching elements, and charge storage capacitances, each being disposed between the pixel electrode and a ground electrode; and

a converting layer formed on the pixel electrodes to generate a pair of electron-hole by absorbing one of light and radiation, said converting layer being formed of a vapor-deposited polycrystalline film of CdTe or CdZnTe having a film-forming temperature higher than 300°C.